

ORIGINAL ARTICLE

Reasons for the preference of clinic visits to self-medication by common cold patients in Japan

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Abstract

Background: Many Japanese visit medical institutions for common cold treatment, which can cause congestion in these institutions and an increase in medical expenses, although the common cold can be treated sufficiently through self-medication. Therefore, to elucidate the reasons individuals with common colds do not use over-the-counter (OTC) medication, we conducted an investigation using a self-administered inquiry sheet to determine reasons for clinic visits and for the avoidance of OTC medication.

Methods: The study was of patients with self-diagnosed common cold symptoms using an anonymous self-report questionnaire.

Results: Of the 471 patients administered the questionnaire, 442 responded. The analysis was focused on the 37 patients who responded that they had considered using OTC medication before coming to the clinic but decided against it and came to the clinic instead. The majority responded positively saying that they felt reassured when seen by a physician (91.9%) and that their common cold was cured more rapidly (89.2%).

Conclusions: It can be presumed that many patients with common colds visit medical institutions because they feel reassured and feel that their symptoms improve at a quicker rate. The findings of this study indicated that there is a need for accurate information and relief from anxiety for patients regarding the common cold.

KEYWORDS

common cold, over-the-counter medication, patient's behavior, self-medication

1 | BACKGROUND

The World Health Organization (WHO) has indicated that responsible self-medication can help prevent and treat ailments that do not require a professional medical consultation.¹ Some governments are increasingly encouraging self-care, including self-medication, for minor illnesses.² The Japanese government has embraced this concept in an

effort to control medical expenses. Medical self-care can be defined as the range of behaviors undertaken to treat a medical problem without professional intervention.³

Self-care can reduce both private and governmental medical expenses. The Japanese national medical insurance system covers a minimum of 70% of medical fees, therefore many citizens usually do not consider the total expense. However, it may be necessary to consider

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the growth of total medical costs. Self-care is encouraged for cost reduction and for better daily health management; it can also help patients prevent secondary infections and reduce overload, the time-saving and psychological burden of getting off work.^{2,4} The encouragement of self-care, also referred to as patient empowerment, includes giving patients the opportunity to take responsibility and build confidence in their ability to manage their own health⁵ through facilitating the process of identifying health needs, setting goals related to their own health care, identifying personal and social obstacles, developing solutions, considering the possible consequences of alternative solutions, and making appropriate decisions.^{6–8} The empowerment approach has been linked to the theory of self-determination, which supports empowering individuals to be more independent in their self-care and increases the chances of long-lasting self-care habits.⁹

In the case of the common cold, when they are self-limited¹⁰, in good general health, and there is no underlying primary illness, there is no absolute need to visit a medical institution.

However, in Japan, common colds comprise the highest number of health conditions (22.5%) for which individuals visit clinics as outpatients for primary care in any given year¹¹, and the number of patients who consult physicians due to upper respiratory tract infection and common colds has been estimated as 240 of 100 000 population per day.¹² This causes an economic burden and can result in an increased risk of infection. Moreover, common colds affect 67% of adults and are an illness that children contract more than once a year.¹³ If an individual develops a habit of self-care and self-medication, it could help reduce medical costs and modulate primary care treatment.

In order to promote self-medication of common colds, we focused on patients who prioritized visiting medical institutions and hypothesized that it would be necessary to consider the reasons that patients visit medical institutions along with what they expect of them.

Regarding common colds and self-medication in Japan, Sugawara et al.¹⁴ have reported that “having a dedicated physician” and “having household medicines” influenced the behavior of individuals who visited medical institutions. However, in the Sugawara study, as the targets were healthy individuals, we assumed that a healthy individual might not visit medical institutions; thus, as hearing directly from patients who visited a medical institution for a common cold is considered to be superior in terms of accuracy for our investigation, we selected them as test subjects.

We began with the hypothesis that the cause of prioritizing visiting medical institutions was due to insufficient information regarding how an individual should deal with his/her condition when having a common cold. In this study we investigated the reasons why common cold patients prefer visiting medical institutions over self-medication. By targeting the patients who actually visited medical institutions, we attempted to build a starting point for the promotion of self-medication.

2 | METHODS

This study was approved by the Tsukuba University Institutional Review Board (681 series).

2.1 | Setting and target

The study was of self-diagnosed patients with common cold symptoms who were over 20 years of age using an anonymous self-report questionnaire. The study was conducted at nine clinics and hospitals, both public and private, in eastern and northern cities, both rural and urban, in Japan. Based on a previous study,¹⁵ a self-diagnosed common cold was defined as those who answered that they have two or more of the following symptoms: sore throat, sputum, coughing, nasal congestion, or chill.

During the period from October 2012 to January 2013, the nursing or administrative staff of each medical institution was given an explanation about the written document that contained the contents of the study. The study questionnaire was distributed to those patients who agreed to participate. After the questionnaire was completed, the patients themselves placed it in a sealed envelope which was returned to us.

2.2 | Questionnaire content

Questions covered age, gender, regular clinic visits, and whether the individual owns household medicines. The questionnaire also asked whether the patient consumed over-the-counter (OTC) medication before visiting the medical institution; for those patients who considered taking OTC medication but did not, the survey inquired about the reasons for visiting the medical institution and for not using any OTC medication.

As reasons for visiting a medical institution, the following 14 options were provided:

“Feeling reassured when seen by a physician,” “Recovering more quickly when visiting a hospital,” “Somehow feeling that it was better to visit a hospital,” “Believing that when catching cold, an individual should visit a hospital,” “Was recommended to visit a hospital by family and friends,” “Because a fundamental cure can be provided by physician,” “Could consult regarding other issues,” “It being cheaper to visit the hospital,” “Hospital being closer than the pharmacy,” “When previously taking OTC medication, disease worsened,” “Physician suggested that when catching cold, an individual should visit a hospital,” “In this time, regular visits to a hospital are necessary,” “Wanting to have a checkup for influenza,” and “Wanting to have an intravenous drip or injection.”

For reasons against using OTC medication, 12 items were set: “OTC medication does not work,” “Did not know which OTC drug was best,” “Was concerned that I cannot choose a medication that was suited to my status and symptoms,” “There was no appropriate OTC medication at home,” “Cannot trust the drug because it was not prescribed by a doctor,” “Believe that OTC medication does not contain effective ingredients,” “Concerned regarding side effects,” “Concerned regarding combination with other drugs,” “Troublesome to select by myself,” “No experience of using OTC medication,” “OTC medication do not suit my physique,” and “Did not know how to use OTC medication.”

We used a 4-point Likert scale with the options of “very applicable,” “applicable,” “not so applicable,” and “not applicable.” In this analysis,

the reasons for their visit and for not taking the OTC medication were divided into "Positive group" ("very applicable" and "applicable") and "Negative group" ("not so applicable" and "not applicable"). The reasons stated above were established based on a previous study¹⁴, our pilot study, and decided by a team of seven physicians and a social welfare worker.

All statistical analyses were conducted using IBM SPSS Statistics for Windows Version 21.0.

3 | RESULTS

The questionnaires were distributed to 471 patients who had visited medical institutions for the treatment of common colds; the response rate was 93.8%. There were 220 patients (49.7%) who did not take OTC medication before their visits. Of these, 170 who did not consider using OTC medication before visiting the medical institutions were excluded. The analysis was conducted on 37 patients (16.8%; Figure 1) who did consider taking OTC medication. They were asked the reasons for their visit and for not taking the OTC medications.

The characteristics of the respondents were as follows (Table 1): 19 (51.4%) were male, the average age of all participants was 44.8 ± 17.8 (range: 20-83), and 56.6% of respondents were from clinics, 40.5% from city mid-size hospitals, and 2.7% from university hospitals. Of the respondents, 10 (27.0%) had a regular checkup, and 22 (59.5%) owned medications to treat the common cold at their homes.

Table 2 shows the reasons for visiting the medical institution for a common cold. A majority of the patients selected "Feeling reassured when seen by a physician" (91.9%) and "Recovering more quickly when visiting a hospital" (89.2%). More than half selected "Somehow feeling that it was better to visit a hospital" (59.5%), "Believing that when catching cold, an individual should visit a hospital" (54.1%), and "Because a fundamental cure can be provided by physician" (51.4%).

Participants also responded that "It being cheaper to visit the hospital" (40.5%) and "Hospital being closer than the pharmacy" (37.8%), while 24.3% desired medical intervention such as a checkup, intravenous drip, or injection.

Table 3 shows the reason why OTC medication was not used when the participants considered use. Participants selected "OTC

TABLE 1 Properties of targets (n=37)

		n	%	Age (years)
Overall age				44.8±17.8
Sex	Male	19	51.4	45.4±16.1
	Female	18	48.6	44.2±19.9
Medical institutions	Clinics	21	56.6	
	Municipal hospitals	15	40.5	
	University hospitals	1	2.7	
Regular clinic visits	Yes	10	27.0	
Cold medicine always at home	Yes	22	59.5	

medication does not work" (56.8%), "Did not know which OTC medication was best" (51.4%), and "Was concerned that I cannot choose a medication that was suited to my status and symptoms" (51.4%), while 48.6% responded that "There was no appropriate OTC medication at home."

4 | DISCUSSION

Of the 37 patients' responses analyzed, there were some opinions that reasons for this coping action were as follows: "reassurance" (91.9%), "somehow better to visit" (59.5%), "should visit hospital" (54.1%), and others. It was surmised from these opinions that they seek relief from a hospital or consult a hospital as a habitual custom.

Our research shows that about half of the patients (220, 49.7%) answered "Consult medical institutions without using OTC medication." On the contrary, in the study performed by Sato et al.¹⁶ 36% people use OTC. In our results, a large percentage of people did not consider OTC medication. This difference is likely due to our questionnaire targeting only those who visited a medical institution, whereas the people who used OTC medication were less likely to visit a medical institution.

A reason for visiting medical institutions, especially to obtain a sense of security, may be that there is free access to medical

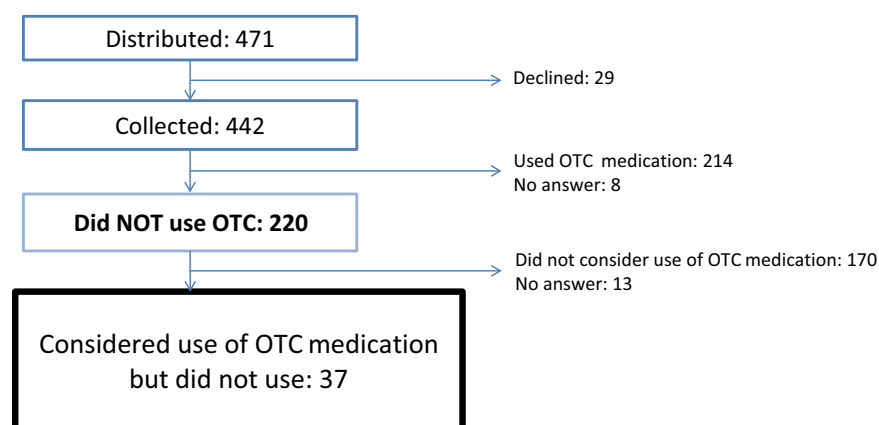


FIGURE 1 Target to be distributed

TABLE 2 Reasons for visiting medical institution

No		Positive group		Negative group	
		n	%	n	%
1	Feeling reassured when seen by a physician (reassurance)	34	91.9	3	8.1
2	Recovering more quickly when visiting a hospital (quick recovery)	33	89.2	4	10.8
3	Somehow feeling that it was better to visit a hospital (somehow better to visit)	22	59.5	15	40.5
4	Believing that when catching cold, an individual should visit a hospital (should visit hospital)	20	54.1	17	45.9
5	Was recommended to visit a hospital by family and friends (recommendation)	20	54.1	17	45.9
6	Because a fundamental cure can be provided by physician (fundamental cure)	19	51.4	18	48.6
7	Could consult regarding other issues (other issues)	17	45.9	20	54.1
8	It being cheaper to visit the hospital (cheaper)	15	40.5	22	59.5
9	Hospital being closer than the pharmacy (closer)	14	37.8	23	62.2
10	When previously taking OTC medication, disease worsened (past experience)	12	32.4	25	67.6
11	Physician suggested that when catching cold, an individual should visit a hospital (recommendation from physicians)	11	29.7	26	70.3
12	In this time, regular visits to a hospital are necessary (regular visit)	10	27.0	27	73.0
13	Wanting to have a checkup for influenza (flu checkup)	9	24.3	28	75.7
14	Wanting to have an intravenous drip or injection (IV drip)	9	24.3	28	75.7

Descriptions in parenthesis are short summaries for each item that are not described in the original questionnaire.
OTC medication, Over-the-counter medication.

TABLE 3 Reasons for not taking OTC medication

No		Positive group		Negative group	
		n	%	n	%
1	OTC medication does not work	21	56.8	16	43.2
2	Did not know which OTC drug was best	19	51.4	18	48.6
3	Was concerned that I cannot choose a medication that was suited to my status and symptoms	19	51.4	18	48.6
4	There was no appropriate OTC medication at home	18	48.6	19	51.4
5	Cannot trust the drug because it was not prescribed by a doctor	17	45.9	20	54.1
6	Believe that OTC medication does not contain effective ingredients	17	45.9	20	54.1
7	Concerned regarding side effects	12	32.4	25	67.6
8	Concerned regarding combination with other drugs	10	27.0	27	73.0
9	Troublesome to select by myself	8	21.6	29	78.4
10	No experience of using OTC medication	8	21.6	29	78.4
11	OTC medication do not suit my physique	6	16.2	31	83.8
12	Did not know how to use OTC medication	5	13.5	32	86.5

institutions in Japan, in that people can freely select medical institutions by their own judgment. There is a government-led national medical insurance for all citizens, so the burden of medical fees is reduced. It is also due to the increasing prevalence of nuclear families¹⁷, where likely less information regarding the treatment of common colds is being passed on to the next generation. In addition, customs for the prevention of common colds, such as gargling and the washing of hands have been promoted through school education from an early age,¹⁸ but there is much less exposure to measures for dealing with common cold. Compared with other countries, the Japanese people

may have a more dependent attitude toward medical care¹⁹ due to their cultural and social backgrounds. Therefore, Japanese people tend to rely on professionals for medication selection.

Improving their understanding of coping skills for common colds that can be treated with self-medication would lead to less crowded medical facilities and a reduction of the chance of hospital infections, further improving the quality of self-care.

If the self-care capability of the populace becomes more suitable, it will lead to a reduction of these problems: health care costs; the physical and psychological strain of health care providers, such as

physicians and nurses; and time and payments of hospital visits for patients. Moreover, with improved self-care skills, people can have greater confidence in the management of their own health.⁵

With the rapid aging of Japanese society, we are concerned about the yearly increase of costs. Li et al.²⁰ estimated that a ten-fold enrichment of citizens' knowledge of self-medication would save up to 60 billion yen of national health care costs, and expand the market of OTC medication by up to 6 billion yen. Nevertheless, as of 2014 article, there were 36% participants who used OTC cold drugs in a questionnaire survey from Ohasama, a rural Japanese community.¹⁶ For our limited medical resources to be distributed to much-needed patients, we need to establish a learning-support environment to the populace who can acquire suitable knowledge about common colds, which are one of the typical self-limiting diseases.

This study had some limitations. Assessment was conducted via self-report questionnaires, which are intrinsic limited and open to response bias, that is, socially desirable response. Therefore, questionnaires were collected from individual envelopes. In addition, the questionnaire used the Likert scale as to both take the physical condition of the patient into account and to put emphasis on reducing the answer time. As such, it was difficult to give a more nuanced or detailed opinion compared to the presented choices. A further direction of this study will be how to remove a patient's uneasiness.

We need to promote awareness among the populace of the correct behavior toward self-medication for common colds. Primary care physicians, whose activities are closely related to local community, may need to take a role in providing appropriate knowledge to the community. These approaches will enable the practice of self-medication of common colds by the patients, which will lead to more appropriate clinic visitation and promote self-medication within society.

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CONFLICT OF INTEREST

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